

**ETX-DB-ATX**  
**ETX MODULE BASEBOARD**  
**PCB V1.2**

**Manual Revision 1.0**  
**April 11, 2002**

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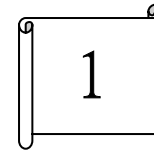
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## Introduction

ETX-DB-ATX is designed for ETX module computer board applications

The ETX-DB-ATX provides four 100 pins FX8 series connector to connect ETX module computer board. It also provides all kind of input/output port, included two parallel ports, two serial ports RS-232, four USB ports, three audio phone jacks, one VGA CRT connector, one 48 bits two channels LVDS connector, two PCI interface slots, one ISA interface slots, two channel IED interface connectors, one floppy interface connector, one TV-out port, one IR port, and a PS/2 keyboard/mouse interface.

### 1.1 Specifications

**\*Display interface:**

Support CRT and LVDS LCD displays simultaneously

**\*Audio interface:**

Connector: Speaker, Mic-in, Line-in.

**\*IDE interface:** supports two PCI Enhanced IDE hard drives

**\*FDD interface:** support up to two floppy disk drives, 5.25" ( 360KB and 1.2MB ) and/or 3.5" ( 720KB, 1.44MB, and 2.88MB ) (Multi function with Parallel port)

**\*Serial ports:** Two RS232 ports

**\*Parallel port:** One Parallel port can supports SPP/EPP/ECP mode (Multi function with Floppy interface)

**\*PS/2 Mouse/Keyboard interface:** easy connection to a keyboard or PS/2 mouse

**\*USB interface:** four USB ports.

**\*PCI interface:** Two PCI slots.

\***ISA interface:** One ISA slots.

\***10/100Mbps Ethernet Controller:** Intel 82551QM or Realtek RTL8100 IEEE802.u 100 BASE-TX standard Dual Auto-sensing interface to 10Mbps or 100Mbps networks. On board RJ45 connectors provide for easy connection.

\***Power connector:** standard ATX power connector

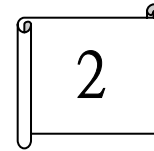
\***Dimension:** 304mm x 190mm

## 1.2 What You Have

Before you begin installing the product, please check the following materials are included in the package:

- 1 ETX-DB-ATX ETX module baseboard
- 1 3.5" IDE flat cable (ATA-66, 44 pin 2.54mm pitch, 457mm)(32200-000052)
- 1 floppy cable (for 3.5" FDD only) (32200-000017)
- 1 serial port cable (for RS232) (32200-0000??)

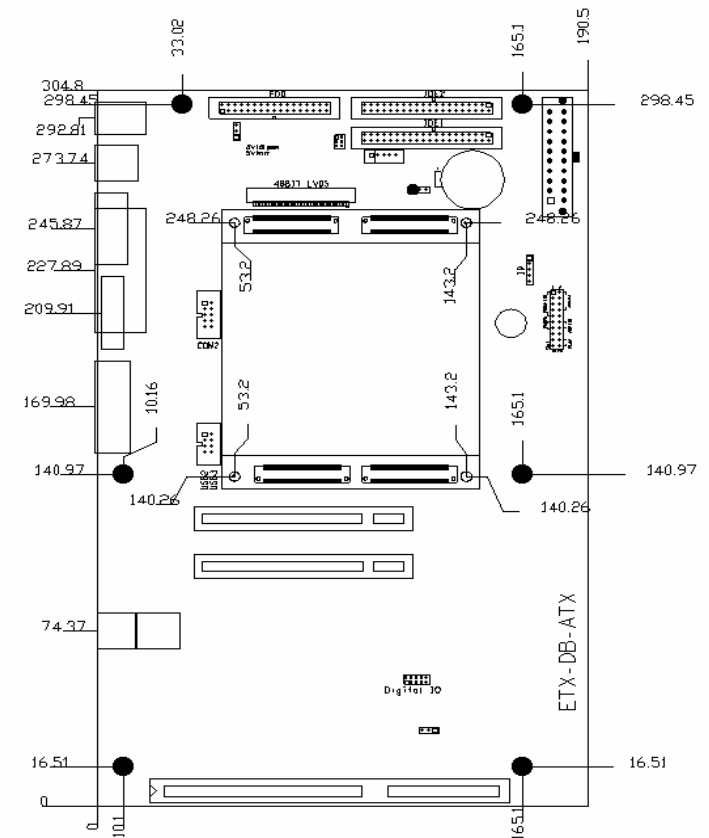
If any of these items are missing or damaged, contact your distributor or sales representative immediately.

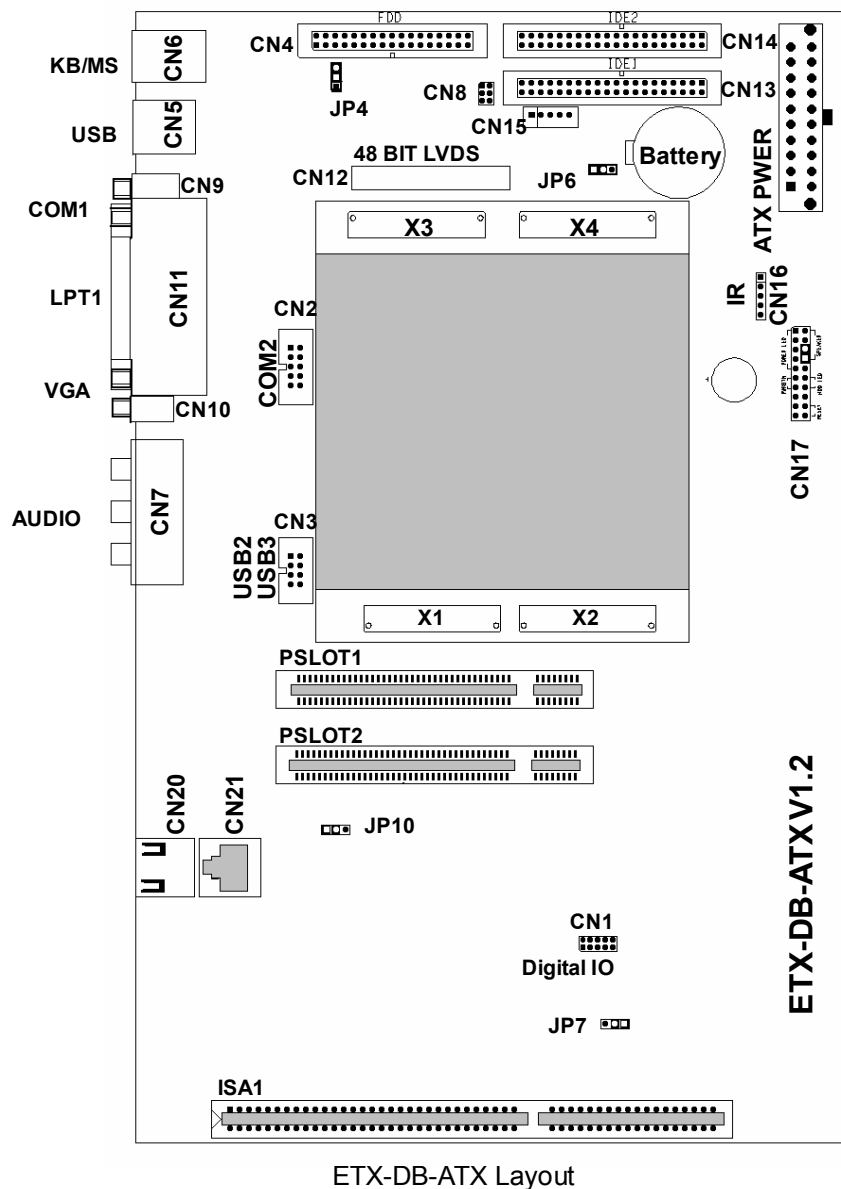


## Installation

This chapter gives instructions about how to set up the ETX-DB-ATX hardware, including directions of connecting peripherals. Before installation, please pay attention to the unpacking precautions on the following page for safety.

### 2.1 ETX-DB-ATX Board Layout





## 2.2 Unpacking Precautions

Some components of ETX-DB-ATX are very sensitive to static electric charges and can be damaged by a sudden rush of power. To protect it from unintended damage, be sure to note these precautions:

Ground yourself to remove any static charge before touching the ETX-DB-ATX. You can do it by using a grounded wrist strap at all times or by frequently touching any conducting materials that is connected to the ground.

Handle your ETX-DB-ATX by its edges. Don't touch IC chips, leads or circuitry if not necessary.

Do not plug any connector or jumper while the power is on.

## 2.3 LCD Vcc Voltage Selector

The LCD interface connector CN1, CN2, CN6 can provide 5V or 3.3V power supply by selecting the JP4 to meet the different LCD requirement.

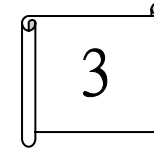
| JP4 | DESCRIPTION |
|-----|-------------|
| 1-2 | 5V          |
| 2-3 | 3.3V        |

## 2.4 Clear CMOS Setup

If you need to clear the CMOS Setup (for example, forgot the password, you should clear the setup and then set the password again.), you should close the JP6 about 3 seconds, then open it again. Set back to normal operation mode by open JP6.

- JP6: Clear CMOS Setup (Reserve Function)

| JP6 | DESCRIPTION      |
|-----|------------------|
| 1-2 | Normal Operation |
| 2-3 | Clear CMOS Setup |



## Connection

This chapter describes how to connect peripherals, switches and indicators to the ETX-DB-ATX board.

### 2.5 WatchDog Timeout Active Selector

Reading I/O port 443H enables the WatchDog Timer. It should be triggered before the time-out period ends, otherwise it will assume the program operation is abnormal and will issue a reset signal or an interrupt signal. The Watch-Dog Timer is disabled by reading port 043/843H. detail information on WatchDog Timer Refer to Appendix A

- JP7: WatchDog Active Select

| JP7 | DESCRIPTION |
|-----|-------------|
| 1-2 | RESET       |
| 2-3 | IRQ11       |

### 2.6 Internal Buzzer Enable/Disable

- CN17 Pin 6 & Pin 8: Internal Buzzer Enable/Disable

| CN17 Pin 6 & Pin 8 | DESCRIPTION |
|--------------------|-------------|
| On(short)          | Enable      |
| Off(open)          | Disable     |

### 2.7 Ethernet Controller Setting

The On Board Ethernet Controller can be enable or disable by selecting the JP10.

| JP10 | DESCRIPTION |
|------|-------------|
| 1-2  | Enable      |
| 2-3  | Disable     |

### 3.1 ETX Connector X1

X1: PCI-Bus, USB, and Audio

| PIN | SIGNAL  | PIN | SIGNAL     |
|-----|---------|-----|------------|
| 1   | GND     | 2   | GND        |
| 3   | PCICLK3 | 4   | PCICLK4    |
| 5   | GND     | 6   | GND        |
| 7   | PCICLK1 | 8   | PCICLK2    |
| 9   | REQ3#   | 10  | GNT3#      |
| 11  | GNT2#   | 12  | 3.3V       |
| 13  | REQ2#   | 14  | GNT1#      |
| 15  | REQ1#   | 16  | 3.3V       |
| 17  | GNT0#   | 18  | RESERVED   |
| 19  | 5V      | 20  | 5V         |
| 21  | SERIRQ  | 22  | REQ0#      |
| 23  | AD0     | 24  | 3.3V       |
| 25  | AD1     | 26  | AD2        |
| 27  | AD4     | 28  | AD3        |
| 29  | AD6     | 30  | AD5        |
| 31  | CBE0#   | 32  | AD7        |
| 33  | AD8     | 34  | AD9        |
| 35  | GND     | 36  | GND        |
| 37  | AD10    | 38  | LINE-IN-L  |
| 39  | AD11    | 40  | MIC        |
| 41  | AD12    | 42  | LINE-IN-R  |
| 43  | AD13    | 44  | ASVCC      |
| 45  | AD14    | 46  | LINE-OUT-L |
| 47  | AD15    | 48  | ASGND      |
| 49  | CBE1#   | 50  | LINE-OUT-R |

| PIN | SIGNAL  | PIN | SIGNAL   |
|-----|---------|-----|----------|
| 51  | 5V      | 52  | 5V       |
| 53  | PAR     | 54  | SERR#    |
| 55  | PERR#   | 56  | RESERVED |
| 57  | PME#    | 58  | USB2#    |
| 59  | LOCK#   | 60  | DEVSEL#  |
| 61  | TRDY#   | 62  | USB3#    |
| 63  | IRDY#   | 64  | STOP#    |
| 65  | FRAME#  | 66  | USB2     |
| 67  | GND     | 68  | GND      |
| 69  | AD16    | 70  | CBE2#    |
| 71  | AD17    | 72  | USB3     |
| 73  | AD19    | 74  | AD18     |
| 75  | AD20    | 76  | USB0#    |
| 77  | AD22    | 78  | AD21     |
| 79  | AD23    | 80  | USB1#    |
| 81  | AD24    | 82  | CBE3#    |
| 83  | 5V      | 84  | 5V       |
| 85  | AD25    | 86  | AD26     |
| 87  | AD28    | 88  | USB0     |
| 89  | AD27    | 90  | AD29     |
| 91  | AD30    | 92  | USB1     |
| 93  | PCIRST# | 94  | AD31     |
| 95  | INTC#   | 96  | INTD#    |
| 97  | INTA#   | 98  | INTB#    |
| 99  | GND     | 100 | GND      |

### 3.2 ETX Connector X2

X2: ISA Bus

| PIN | SIGNAL | PIN | SIGNAL   |
|-----|--------|-----|----------|
| 1   | GND    | 2   | GND      |
| 3   | SD!4   | 4   | SD15     |
| 5   | SD13   | 6   | MASTER#  |
| 7   | SD12   | 8   | DRQ7     |
| 9   | SD11   | 10  | DACK7#   |
| 11  | SD10   | 12  | DRQ6     |
| 13  | SD9    | 14  | DACK6#   |
| 15  | SD8    | 16  | DRQ5     |
| 17  | MEMW#  | 18  | DACK5#   |
| 19  | MEMR#  | 20  | DRQ0     |
| 21  | LA17   | 22  | DACK0#   |
| 23  | LA18   | 24  | IRQ14    |
| 25  | LA19   | 26  | IIQR15   |
| 27  | LA20   | 28  | IRQ12    |
| 29  | LA21   | 30  | IRQ11    |
| 31  | LA22   | 32  | IRQ10    |
| 33  | LA23   | 34  | IOCS16#  |
| 35  | GND    | 36  | GND      |
| 37  | SBHE#  | 38  | MEMCS16# |
| 39  | SA0    | 40  | OSC      |
| 41  | SA1    | 42  | BALE     |
| 43  | SA1    | 44  | TC       |
| 45  | SA3    | 46  | DACK2#   |
| 47  | SA4    | 48  | IRQ3     |
| 49  | SA5    | 50  | IRQ4     |

| PIN | SIGNAL  | PIN | SIGNAL |
|-----|---------|-----|--------|
| 51  | 5V      | 52  | 5V     |
| 53  | SA6     | 54  | IRQ5   |
| 55  | SA7     | 56  | IRQ6   |
| 57  | SA8     | 58  | IRQ7   |
| 59  | SA9     | 60  | SYSClk |
| 61  | SA10    | 62  | REFSH# |
| 63  | SA11    | 64  | REQ1   |
| 65  | SA12    | 66  | DACK1# |
| 67  | GND     | 68  | GND    |
| 69  | SA13    | 70  | DRQ3   |
| 71  | SA14    | 72  | DACK3# |
| 73  | SA15    | 74  | IOR#   |
| 75  | SA16    | 76  | IOW#   |
| 77  | SA18    | 78  | SA17   |
| 79  | SA19    | 80  | SMEMR# |
| 81  | IOCHRDY | 82  | AEN    |
| 83  | 5V      | 84  | 5V     |
| 85  | SD0     | 86  | SMEMW# |
| 87  | SD2     | 88  | SD1    |
| 89  | SD3     | 90  | ZOWS#  |
| 91  | DRQ2    | 92  | SD4    |
| 93  | SD5     | 94  | IRQ9   |
| 95  | SD6     | 96  | SD7    |
| 97  | IOCHK#  | 98  | RSTDRV |
| 99  | GND     | 100 | GND    |

### 3.3 ETX Connector X3

X3: VGA, LCD, Video, COM1, COM2, LPT/Floppy, Irda, Mouse, and Keyboard

| PIN | SIGNAL   | PIN | SIGNAL   |
|-----|----------|-----|----------|
| 1   | GND      | 2   | GND      |
| 3   | R        | 4   | B        |
| 5   | CRTHSYNC | 6   | G        |
| 7   | CRTVSYNC | 8   | DDCSCL   |
| 9   | N.C.     | 10  | DDCSDA   |
| 11  | TXCLK1-  | 12  | TXOUT13- |
| 13  | TXCLK1+  | 14  | TXOUT13+ |
| 15  | GND      | 16  | GND      |
| 17  | TXOUT11+ | 18  | TXOUT12+ |
| 19  | TXOUT11- | 20  | TXOUT12- |
| 21  | GND      | 22  | GND      |
| 23  | TXOUT03- | 24  | TXOUT10+ |
| 25  | TXOUT03+ | 26  | TXOUT10- |
| 27  | GND      | 28  | GND      |
| 29  | TXOUT02- | 30  | TXCLK0+  |
| 31  | TXOUT02+ | 32  | TXCLK0-  |
| 33  | GND      | 34  | GND      |
| 35  | TXOUT00+ | 36  | TXOUT01+ |
| 37  | TXOUT00- | 38  | TXOUT01- |
| 39  | 5V       | 40  | 5V       |
| 41  | N.C.     | 42  | N.C.     |
| 43  | N.C.     | 44  | FPENABKL |
| 45  | N.C.     | 46  | FPENAVDD |
| 47  | TV-CVBS  | 48  | TV-Y     |
| 49  | TV-SYNC  | 50  | TV-C     |

| PIN | SIGNAL    | PIN | SIGNAL   |
|-----|-----------|-----|----------|
| 51  | LPT/FLPY# | 52  | RESERVED |
| 53  | 5V        | 54  | GND      |
| 55  | STB#      | 56  | AFD#     |
| 57  | RESERVED  | 58  | PD7      |
| 59  | IRRX      | 60  | ERR#     |
| 61  | IRTX      | 62  | PD6      |
| 63  | RXD2      | 64  | INIT#    |
| 65  | GND       | 66  | GND      |
| 67  | RTS2#     | 68  | PD5      |
| 69  | DTR2#     | 70  | SLIN#    |
| 71  | DCD2#     | 72  | PD4      |
| 73  | DSR2#     | 74  | PD3      |
| 75  | CTS2#     | 76  | PD2      |
| 77  | TXD2      | 78  | PD1      |
| 79  | RI2#      | 80  | PD0      |
| 81  | 5V        | 82  | 5V       |
| 83  | RXD1      | 84  | ACK#     |
| 85  | RTS1#     | 86  | BUSY#    |
| 87  | DTR1#     | 88  | PE       |
| 89  | DCD1#     | 90  | SLCT     |
| 91  | DSR1#     | 92  | MSCLK    |
| 93  | CTS1#     | 94  | MSDATA   |
| 95  | TXD1      | 96  | KBCLK    |
| 97  | RI1#      | 98  | KBDATA   |
| 99  | GND       | 100 | GND      |

### 3.4 ETX Connector X4

X4: IDE1, IDE2, and Miscellaneous

| PIN | SIGNAL     | PIN | SIGNAL     |
|-----|------------|-----|------------|
| 1   | GND        | 2   | GND        |
| 3   | 5VSB       | 4   | PWGIN      |
| 5   | PS_ON      | 6   | SPEAKER    |
| 7   | PWRBTN#    | 8   | VBAT       |
| 9   | KBINH      | 10  | N.C.       |
| 11  | WDTACT#    | 12  | N.C.       |
| 13  | ROMKBCS#   | 14  | N.C.       |
| 15  | ROMCS#     | 16  | I2CCLK     |
| 17  | 5V         | 18  | 5V         |
| 19  | OVRCUR     | 20  | DIOCS#     |
| 21  | EXTSM#     | 22  | I2CDATA    |
| 23  | SMBCLK     | 24  | SMBDATA    |
| 25  | SIDE_CS3#  | 26  | N.C.       |
| 27  | SIDE_CS1#  | 28  | DASP_S     |
| 29  | SIDE_A2    | 30  | PIDE_CS3#  |
| 31  | SIDE_A0    | 32  | PIDE_CS1#  |
| 33  | GND        | 34  | GND        |
| 35  | PDIAG_S    | 36  | PIDE_A2    |
| 37  | SIDE_A1    | 38  | PIDE_A0    |
| 39  | SIDE_IRQ#  | 40  | PIDE_A1    |
| 41  | N.C.       | 42  | N.C.       |
| 43  | SIDE_DACK# | 44  | PIDE_IRQ#  |
| 45  | SIDE_IORDY | 46  | PIDE_DACK# |
| 47  | SIDE_IOR#  | 48  | PIDE_IORDY |
| 49  | 5V         | 50  | 5V         |

| PIN | SIGNAL    | PIN | SIGNAL    |
|-----|-----------|-----|-----------|
| 51  | SIED_IOW# | 52  | PIDE_IOR# |
| 53  | SIDE_DRQ  | 54  | PIDE_IOW# |
| 55  | SIDE_D15  | 56  | PIDE_DRQ  |
| 57  | SIDE_D0   | 58  | PIDE_D15  |
| 59  | SIDE_D14  | 60  | PIDE_D0   |
| 61  | SIDE_D1   | 62  | PIDE_D14  |
| 63  | SIDE_D13  | 64  | PIDE_D1   |
| 65  | GND       | 66  | GND       |
| 67  | SIDE_D2   | 68  | PIDE_D13  |
| 69  | SIDE_D12  | 70  | PIDE_D2   |
| 71  | SIDE_D3   | 72  | PIDE_D12  |
| 73  | SIDE_D11  | 74  | PIDE_D3   |
| 75  | SIDE_D4   | 76  | PIDE_D11  |
| 77  | SIDE_D10  | 78  | PIDE_D4   |
| 79  | SIDE_D5   | 80  | PIDE_D10  |
| 81  | 5V        | 82  | 5V        |
| 83  | SIDE_D9   | 84  | PIDE_D5   |
| 85  | SIDE_D6   | 86  | PIDE_D9   |
| 87  | SIDE_D8   | 88  | PIDE_D6   |
| 89  | RING#     | 90  | N.C.      |
| 91  | N.C.      | 92  | PIDE_D8   |
| 93  | N.C.      | 94  | SIDE_D7   |
| 95  | N.C.      | 96  | PIDE_D7   |
| 97  | N.C.      | 98  | IDERST#   |
| 99  | GND       | 100 | GND       |

### 3.5 Floppy Disk Drive Connector

ETX-DB-ATX board is equipped with a 34-pin daisy-chain driver connector cable.

CN4: FDC CONNECTOR

| PIN NO. | DESCRIPTION | PIN NO. | DESCRIPTION     |
|---------|-------------|---------|-----------------|
| 1       | GROUND      | 2       | REDUCE WRITE    |
| 3       | GROUND      | 4       | N/C             |
| 5       | GROUND      | 6       | N/C             |
| 7       | GROUND      | 8       | INDEX#          |
| 9       | GROUND      | 10      | MOTOR ENABLE A# |
| 11      | GROUND      | 12      | DRIVE SELECT B# |
| 13      | GROUND      | 14      | DRIVE SELECT A# |
| 15      | GROUND      | 16      | MOTOR ENABLE B# |
| 17      | GROUND      | 18      | DIRECTION#      |
| 19      | GROUND      | 20      | STEP#           |
| 21      | GROUND      | 22      | WRITE DATA#     |
| 23      | GROUND      | 24      | WRITE GATE#     |
| 25      | GROUND      | 26      | TRACK 0#        |
| 27      | GROUND      | 28      | WRITE PROTECT#  |
| 29      | GROUND      | 30      | READ DATA#      |
| 31      | GROUND      | 32      | SIDE 1 SELECT#  |
| 33      | GROUND      | 34      | DISK CHANGE#    |

### 3.6 PCI E-IDE Disk Drive Connector

For IDE HDD connection, The ETX-DB-ATX was designed with two 2.54mm standard IDE connector (CN13, CN14)

CN13: 40-pin Primary IDE Interface Connector

CN14: 40-pin Secondly IDE Interface Connector

| PIN NO. | DESCRIPTION | PIN NO. | DESCRIPTION    |
|---------|-------------|---------|----------------|
| 1       | RESET#      | 2       | GROUND         |
| 3       | DATA 7      | 4       | DATA 8         |
| 5       | DATA 6      | 6       | DATA 9         |
| 7       | DATA 5      | 8       | DATA 10        |
| 9       | DATA 4      | 10      | DATA 11        |
| 11      | DATA 3      | 12      | DATA 12        |
| 13      | DATA 2      | 14      | DATA 13        |
| 15      | DATA 1      | 16      | DATA 14        |
| 17      | DATA 0      | 18      | DATA 15        |
| 19      | GROUND      | 20      | N/C            |
| 21      | IDE DRQ     | 22      | GROUND         |
| 23      | IOW#        | 24      | GROUND         |
| 25      | IOR#        | 26      | GROUND         |
| 27      | IDE CHRDY   | 28      | GROUND         |
| 29      | IDE DACK    | 30      | GROUND-DEFAULT |
| 31      | INTERRUPT   | 32      | N/C            |
| 33      | SA1         | 34      | N/C            |
| 35      | SA0         | 36      | SA2            |
| 37      | HDC CS0#    | 38      | HDC CS1#       |
| 39      | HDD ACTIVE# | 40      | GROUND         |

### 3.7 Parallel Port

This port is usually connected to a printer, The ETX-DB-ATX includes an on-board parallel port (CN11), accessed through a 25 pin D-sub connector.

- CN11: Parallel Port1 D-sub Connector

| PIN NO. | DESCRIPTION    | PIN NO. | DESCRIPTION        |
|---------|----------------|---------|--------------------|
| 1       | STROBE#        | 14      | AUTO FORM FEED #   |
| 2       | DATA 0         | 15      | ERROR#             |
| 3       | DATA 1         | 16      | INITIALIZE         |
| 4       | DATA 2         | 17      | PRINTER SELECT LN# |
| 5       | DATA 3         | 18      | GROUND             |
| 6       | DATA 4         | 19      | GROUND             |
| 7       | DATA 5         | 20      | GROUND             |
| 8       | DATA 6         | 21      | GROUND             |
| 9       | DATA 7         | 22      | GROUND             |
| 10      | ACKNOWLEDGE    | 23      | GROUND             |
| 11      | BUSY           | 24      | GROUND             |
| 12      | PAPER EMPTY    | 25      | GROUND             |
| 13      | PRINTER SELECT |         |                    |

### 3.8 Serial Ports

The ETX-DB-ATX offers two serial ports. These ports let you connect to serial devices or a communication network. One 9-pin D-SUB connector, one 10-pin header, The detailed pin



assignment of the connectors are specified as following tables:

- CN9: Serial Port1 Connector (9-pin D-sub)

| PIN NO. | DESCRIPTION               |
|---------|---------------------------|
| 1       | DATA CARRIER DETECT (DCD) |
| 2       | RECEIVE DATA (RXD)        |
| 3       | TRANSMIT DATA (TXD)       |
| 4       | DATA TERMINAL READY (DTR) |
| 5       | GROUND (GND)              |
| 6       | DATA SET READY (DSR)      |
| 7       | REQUEST TO SEND (RTS)     |
| 8       | CLEAR TO SEND (CTS)       |
| 9       | RING INDICATOR (RI)       |

- CN2: Serial Port2 Connector (10-pin Header/W Housing)

| PIN NO. | DESCRIPTION | PIN NO. | DESCRIPTION |
|---------|-------------|---------|-------------|
| 1       | DCD         | 2       | DSR         |
| 3       | RX          | 4       | RTS         |
| 5       | TX          | 6       | CTS         |
| 7       | DTR         | 8       | RI          |
| 9       | GND         | 10      | N/C         |

### 3.9 USB Port Connector

The ETX-DB-ATX provides four USB interfaces, which gives the completed plug and play, for up to 127 external devices.

- CN5: External USB Connector

| UP PORT |             | DOWN PORT |             |
|---------|-------------|-----------|-------------|
| PIN NO. | DESCRIPTION | PIN NO.   | DESCRIPTION |
| 1       | VCC         | 1         | VCC         |
| 2       | USBD1-      | 2         | USBD0-      |

|   |        |   |        |
|---|--------|---|--------|
| 3 | USBD1+ | 3 | USBD0+ |
| 4 | GND    | 4 | GND    |

- CN3: Internal USB Connector

| PIN NO. | DESCRIPTION | PIN NO. | DESCRIPTION |
|---------|-------------|---------|-------------|
| 1       | VCC         | 5       | GND         |
| 2       | USBD2-      | 6       | USBD3+      |
| 3       | USBD2+      | 7       | USBD3-      |
| 4       | GND         | 8       | VCC         |

### 3.10 IrDA Infrared Interface Port

- CN16: IrDA connector

| PIN NO. | DESCRIPTION |
|---------|-------------|
| 1       | VCC         |
| 2       | N.C.        |
| 3       | IRRX        |
| 4       | Ground      |
| 5       | IRTX        |

### 3.11 TV-OUT Interface Port

- CN8: TV-out connector

| PIN NO. | DESCRIPTION | PIN NO. | DESCRIPTION |
|---------|-------------|---------|-------------|
| 1       | TV-SYNC     | 2       | TV-Y        |
| 3       | GND         | 4       | TV-C        |
| 5       | GND         | 6       | TV-CVBS     |

### 3.12 VGA Connector

The ETX-DB-ATX built-in 15-pin VGA connector accepts the CRT monitor.

- CN10: 15-pin Female Connector

|   |        |   |        |
|---|--------|---|--------|
| 1 | RED    | 2 | GREEN  |
| 3 | BLUE   | 4 | NC     |
| 5 | GROUND | 6 | GROUND |
| 7 | GROUND | 8 | GROUND |

|    |        |    |         |
|----|--------|----|---------|
| 9  | NC     | 10 | GROUND  |
| 11 | NC     | 12 | DDC DAT |
| 13 | HSYNC  | 14 | VSYNC   |
| 15 | DDCCLK |    |         |

### 3.13 LCD/LVDS Interface Connector

The ETX-DB-ATX provides one 30-pin connector for the LVDS flat panel interface.

#### • CN12: Two channel 48 bits LVDS Interface Connector

| PIN NO. | Description   | PIN NO. | Description   |
|---------|---------------|---------|---------------|
| 1       | GND           | 2       | GND           |
| 3       | TxOUT03+      | 4       | TxOUT03-      |
| 5       | TxCLKOUT0+    | 6       | TxCLKOUT0-    |
| 7       | TxOUT02+      | 8       | TxOUT02-      |
| 9       | TxOUT01+      | 10      | TxOUT01-      |
| 11      | TxOUT00+      | 12      | TxOUT00-      |
| 13      | GND           | 14      | GND           |
| 15      | TxOUT13+      | 16      | TxOUT13-      |
| 17      | TxCLKOUT1+    | 18      | TxCLKOUT1-    |
| 19      | TxOUT12+      | 20      | TxOUT12-      |
| 21      | TxOUT11+      | 22      | TxOUT11-      |
| 23      | TxOUT10+      | 24      | TxOUT10-      |
| 25      | GND           | 26      | GND           |
| 27      | PLCD(5V/3.3V) | 28      | PLCD(5V/3.3V) |
| 29      | PLCD(5V/3.3V) | 30      | PLCD(5V/3.3V) |

### 3.14 LAN RJ45 Connector

The ETX-DB-ATX built-in RJ45 LAN connector is for 10/100Mbps Ethernet. The onboard LAN Chip is Intel 82551QM or RealTek RTL8100BL.(IDSEL# = AD26, INTx# = INTA#, REQx# = REQ1#, GNTx# = GNT1#)

#### • CN20, CN21: LAN RJ45 Connector

|   |     |   |     |
|---|-----|---|-----|
| 1 | TX+ | 5 | GND |
|---|-----|---|-----|

|   |     |   |     |
|---|-----|---|-----|
| 2 | TX- | 6 | RX- |
| 3 | RX+ | 7 | GND |
| 4 | GND | 8 | GND |

### 3.15 AUDIO JACK

#### • CN7: Audio Jack

| color | Signal   |
|-------|----------|
| Lime  | Line-out |
| Blue  | Line-in  |
| Pink  | MIC      |

### 3.16 PCI BUS Interface

- PSLOT1: PCI Slot 1
- PSLOT2: PCI Slot 2

#### PCI Routing List

| SIGNAL | PIN No. | PSLOT 1 | PSLOT 2 |
|--------|---------|---------|---------|
| REQ#   | B18     | REQ0#   | REQ1#   |
| GNT#   | A17     | GNT0#   | GNT1#   |
| CLOCK  | B16     | PCICLK1 | PCICLK2 |
| IDSEL  | A26     | AD19    | AD20    |
| INTA#  | A6      | A       | B       |
| INTB#  | B7      | B       | C       |
| INTC#  | A7      | C       | D       |
| INTD#  | B8      | D       | A       |

## • PSLOT1~PSLOT2: PCI Bus pin assignment

| A   |         |     |        | B   |         |     |        |
|-----|---------|-----|--------|-----|---------|-----|--------|
| NO. | Signal  | NO. | Signal | NO. | Signal  | NO. | Single |
| 1   | N.C.    | 2   | +12V   | 1   | -12V    | 2   | N.C.   |
| 3   | N.C.    | 4   | N.C.   | 3   | GND     | 4   | N.C.   |
| 5   | +5V     | 6   | INTA#  | 5   | +5V     | 6   | +5V    |
| 7   | INTC#   | 8   | +5V    | 7   | INTB#   | 8   | INTD#  |
| 9   | N.C.    | 10  | +5V    | 9   | N.C.    | 10  | N.C.   |
| 11  | N.C.    | 12  | GND    | 11  | N.C.    | 12  | GND    |
| 13  | GND     | 14  | N.C.   | 13  | GND     | 14  | N.C.   |
| 15  | PCIRST# | 16  | +5V    | 15  | GND     | 16  | PCICLK |
| 17  | GNT#    | 18  | GND    | 17  | GND     | 18  | REQ#   |
| 19  | PME#    | 20  | AD30   | 19  | +5V     | 20  | AD31   |
| 21  | 3.3V    | 22  | AD28   | 21  | AD29    | 22  | GND    |
| 23  | AD26    | 24  | GND    | 23  | AD27    | 24  | AD25   |
| 25  | AD24    | 26  | IDSEL  | 25  | 3.3V    | 26  | CBE3#  |
| 27  | 3.3V    | 28  | AD22   | 27  | AD23    | 28  | GND    |
| 29  | AD20    | 30  | GND    | 29  | AD21    | 30  | AD19   |
| 31  | AD18    | 32  | AD16   | 31  | 3.3V    | 32  | AD17   |
| 33  | 3.3V    | 34  | FRAME# | 33  | CBE2#   | 34  | GND    |
| 35  | GND     | 36  | TRDY#  | 35  | IRDY#   | 36  | 3.3V   |
| 37  | GND     | 38  | STOP#  | 37  | DEVSEL# | 38  | GND    |
| 39  | 3.3V    | 40  | N.C.   | 39  | LOCK#   | 40  | PERR#  |
| 41  | N.C.    | 42  | GND    | 41  | 3.3V    | 42  | SERR#  |
| 43  | PAR     | 44  | AD15   | 43  | 3.3V    | 44  | CBE1#  |
| 45  | 3.3V    | 46  | AD13   | 45  | AD14    | 46  | GND    |
| 47  | AD11    | 48  | GND    | 47  | AD12    | 48  | AD10   |
| 49  | AD9     | 50  | KEY    | 49  | GND     | 50  | KEY    |
| 51  | KEY     | 52  | CBE0#  | 51  | KEY     | 52  | AD8    |
| 53  | 3.3V    | 54  | AD6    | 53  | AD7     | 54  | 3.3V   |
| 55  | AD4     | 56  | GND    | 55  | AD5     | 56  | AD3    |
| 57  | AD2     | 58  | AD0    | 57  | GND     | 58  | AD1    |
| 59  | +5V     | 60  | N.C.   | 59  | +5V     | 60  | N.C.   |
| 61  | +5V     | 62  | +5V    | 61  | +5V     | 62  | +5V    |

## 3.17 ISA BUS Interface

- ISA1: ISA Slot 1
- ISA1: ISA Bus pin assignment

| A   |         | B   |          | C  |        | D  |          |
|-----|---------|-----|----------|----|--------|----|----------|
| NO. | Signal  | NO. | Signal   | NO | Signal | NO | Signal   |
| 1   | IOCHCK# | 33  | GND      | 1  | SBHE#  | 1  | MEMCS16# |
| 2   | SD7     | 34  | IRSTDRV  | 2  | LA23   | 2  | IOCS16#  |
| 3   | SD6     | 35  | VCC      | 3  | LA22   | 3  | IRQ10    |
| 4   | SD5     | 36  | IRQ9     | 4  | LA21   | 4  | IRQ11    |
| 5   | SD4     | 37  | -5V      | 5  | LA20   | 5  | IRQ12    |
| 6   | SD3     | 38  | DRQ2     | 6  | LA19   | 6  | IRQ15    |
| 7   | SD2     | 39  | -12V     | 7  | LA18   | 7  | IRQ14    |
| 8   | SD1     | 40  | ZWS      | 8  | LA17   | 8  | DACK0#   |
| 9   | SD0     | 41  | +12V     | 9  | MEMR#  | 9  | DREQ0    |
| 10  | IOCHRDY | 42  | GND      | 10 | MEMW#  | 10 | DACK5#   |
| 11  | AEN     | 43  | SMEMW#   | 11 | SD8    | 11 | DREQ5    |
| 12  | LA19    | 44  | SMEMR#   | 12 | SD9    | 12 | DACK6#   |
| 13  | LA18    | 45  | IOW#     | 13 | SD10   | 13 | DREQ6    |
| 14  | LA17    | 46  | IOR#     | 14 | SD11   | 14 | DACK7#   |
| 15  | SA16    | 47  | DACK3#   | 15 | SD12   | 15 | DREQ7    |
| 16  | SA15    | 48  | DRQ3     | 16 | SD13   | 16 | VCC      |
| 17  | SA14    | 49  | DACK1#   | 17 | SD14   | 17 | MASTER#  |
| 18  | SA13    | 50  | DRQ1     | 18 | SD15   | 18 | GND      |
| 19  | SA12    | 51  | REFRESH# |    |        |    |          |
| 20  | SA11    | 52  | SYSCLK   |    |        |    |          |
| 21  | SA10    | 53  | IRQ7     |    |        |    |          |
| 22  | SA9     | 54  | IRQ6     |    |        |    |          |
| 23  | SA8     | 55  | IRQ5     |    |        |    |          |
| 24  | SA7     | 56  | IRQ4     |    |        |    |          |
| 25  | SA6     | 57  | IRQ3     |    |        |    |          |
| 26  | SA5     | 58  | DACK2    |    |        |    |          |
| 27  | SA4     | 59  | TC       |    |        |    |          |
| 28  | SA3     | 60  | BALE     |    |        |    |          |
| 29  | SA2     | 61  | VCC      |    |        |    |          |
| 30  | SA1     | 62  | OSC      |    |        |    |          |
| 31  | SA0     | 63  | GND      |    |        |    |          |
| 32  | GND     | 64  | GND      |    |        |    |          |

### 3.18 ATX power connector

- **PW1: ATX power connector pin assignment**

| ATX(PW1) |        |     |       |
|----------|--------|-----|-------|
| PIN      | NAME   | PIN | NAME  |
| 1        | +3.3V  | 11  | +3.3V |
| 2        | +3.3V  | 12  | -12V  |
| 3        | GND    | 13  | GND   |
| 4        | +5V    | 14  | PS ON |
| 5        | GND    | 15  | GND   |
| 6        | +5V    | 16  | GND   |
| 7        | GND    | 17  | GND   |
| 8        | PWR OK | 18  | -5V   |
| 9        | STB5V  | 19  | +5V   |
| 10       | +12V   | 20  | +5V   |

### 3.19 Front Panel Pin Header

- **CN17: Front Panel Pin Header pin assignment**

| Font Panel Pin Header (CN17) |               |     |                  |
|------------------------------|---------------|-----|------------------|
| PIN                          | NAME          | PIN | NAME             |
| 1                            | Power LED+    | 2   | External Buzzer+ |
| 3                            | Power LED+    | 4   | GND              |
| 5                            | GND           | 6   | Internal Buzzer- |
| 7                            | K/B Lock      | 8   | External Buzzer- |
| 9                            | Power LED-    | 10  | N.C.             |
| 11                           | Power Button1 | 12  | HDD LED-         |
| 13                           | Power Button2 | 14  | HDD LED+         |
| 15                           | N.C.          | 16  | N.C.             |
| 17                           | N.C.          | 18  | Reset button1    |
| 19                           | GND           | 20  | Reset button2    |

### 3.20 Digital IO connector

- **CN1: Digital IO connector pin assignment**

| Digital IO(CN1) |      |     |      |
|-----------------|------|-----|------|
| PIN             | NAME | PIN | NAME |
| 1               | GND  | 2   | +5V  |
| 3               | OUT3 | 4   | OUT2 |
| 5               | OUT1 | 6   | OUT0 |
| 7               | IN3  | 8   | IN2  |
| 9               | IN1  | 10  | IN0  |

### 3.21 Keyboard & PS/2 Mouse Connector

A 6-pin mini DIN connector (CN6) is located on the mounting bracket for easy connection to a keyboard or PS/2 mouse. The card comes with a cable to convert from the 6-pin mini-DIN connector to two 6-pin mini-DIN connector for keyboard and mouse connection

- **CN6: Top 6-pin Mini-DIN Mouse Connector**

| PIN NO. | DESCRIPTION |
|---------|-------------|
| 1       | MOUSE DATA  |
| 2       | N.C.        |
| 3       | GROUND      |
| 4       | +5V         |
| 5       | MOUSE CLOCK |
| 6       | N.C.        |

- **CN6: Bottom 6-pin Mini-DIN Keyboard Connector**

| PIN NO. | DESCRIPTION    |
|---------|----------------|
| 1       | KEYBOARD DATA  |
| 2       | N.C.           |
| 3       | GROUND         |
| 4       | +5V            |
| 5       | KEYBOARD CLOCK |
| 6       | N.C.           |